TOPICS	PROBLEMS	questions	various comments	TOOLS	STRATEGY	RELEVANT SCALE
COASTAL ZONE DYNAMICS	Strong links with basin circulation (slope currents, Kelvin waves, etc),	Exclude nearshore topics (erosion, etc)		data assimilation to be developed (cf US huge efforts with HF radars together with altimetry)	Socio economic impact in coastal zones has to be highlighted in the project.	
	high socio economic impact (see MERMEX) and sensitivity to climatic changes (see MEDCLIVAR)	Different impacts/hazards for different sites (Aegean sea)		Lagrangian measurements /data assimilation (gliders, XBT, drifters)		
TIME SCALES	**EVENTS** From hours to high seasonal and interannual variability			Continuous observations and modelling e.g. MOOSE obs	SOP - LOP and Warning?	
SITES	Processes / budget / oppotunities	Generic processes (larger shelves in North, up/downwellings regimes from Western to Eastern coastal zones)	Ligurian-french-Catalan coast and Aegian sea were mainly discussed together	Synoptic / local obs and modelling	simultaneous field experiment (SOP), common methodology SST	
submesocale coherent structures	localized small scale structures associated to bathymetry, orographic atmospheric structures for example, valleys and wakes	**Residence time, retention** Complex patterns and non linear processes	Stroms and gusts are able to have important consequences	HF radars very useful to give in situ data of surface currents and structures (ex of united states networks of radar)	Observation made possible from te coast (radars, lidars, gliders, XBT, drifters, small RV)	Km is possible in models. Wait for high resolution altimetry.
		Inverse cascade	links with large scale (ex : dense water formation).			
Wind forcings	night and day regims complexify the observation	Is a good wind forcing sufficient ? Are the ocean models good enough now ?	High impact on mesocale shelf circulation, across shelfbreak exchanges, dense water formation and slope current (intrusions)	Coupled OA are expected including the sea state and sediment transport (bottonm and suspended).	good representation and accuracy necessary	effect of small atmospheric structures (breezes, jets in coatal valleys) ?
	problem also found for small scale (bay) if the right wind pattern is not obtain	Compatibility between atmos and ocean modelling (different scales: oceanic respons will be at a smaller scale)				
winter cooling/mixing	what about dense water formation probability during SOP?	Climatic change / NAO		coupled OA models, non hydrostatic processes.	several sites together, LOP + warnings	
specificity of sea state during continental wind			cf FETCH exp			
coupling atm-ocean	NO CLEAR ANSWER but we also need waves + coastal currents	no operational model presently because the atmospheric modelling is not sufficient (greek are trying to do that but it's not completely done)	need to couple with sediment transport because it changes the water density	coupled OA+ waves+sed	data assimilation (radars, future HR altimeters)	
	its a very high level of technical complexity, and probably we will gain few informations from that.		rapid change of SST is expected in shallow waters compared to deep water			
High rainfalls	Local rain and river floods : different time scales answers on the halocline		rain is not homogeneous over the sea (stronger near the shore, increase the cross-shore gradient of density)	radars from the coast / islands		
dynamics of the large plumes	complex and quite fast processes	Interaction / Influence on the slope current (Thyr sea)	clear seasonal variability	images, radars, modelling	SOP ? Warning?	
		freshwater, hydrology, vertical mixing				
cascading	cascading and transport of matter on slopes : contribution to exchanges	do we know all the places where it could happen ?	west Sardina possible, Tunisian shelf during winter			
shelf-slope exchanges	difficult to quantify these exchanges, because of the bad representation of the position of the slope current (bathymetric effects and baroclinic instability)	the boundary currents must be absolutely well reproduced	this is probably the most unknown exchange process	we miss observations	Common with basin circulation	
				new technologies based on UV + glider + altimetry provided strong coordination		
submarine groundwater influence	no real estimation at the scale of the med sea (75% of the river flux according unesco)			dedicated project, development of technics		
	very different between karstic and porous coastal aquifers					

SAME TIMING FOR GREECE
THEY COULD START SOMETHING WITH US AT THE SAME TIME
THE IDEA IS TO SHARE METHODOLOGY, STRATEGY